## **AMENDMENTS TO THE CLAIMS**

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1. (Currently Amended) A material for forming copper undercoat films comprising a compound represented by the general formula

$$(R_1R_2)P-(R)n-Si(X_1X_2X_3)$$

wherein at least one of X<sub>1</sub>, X<sub>2</sub> and X<sub>3</sub> is a hydrolytic group, R<sub>1</sub> and R<sub>2</sub> are alkyl groups, R denotes a chain-form organic group formed from alkyl groups, aromatic rings or alkyl groups containing aromatic rings, and n is an integer from 1 to 6, wherein the material prevents copper diffusion.

2. (Currently Amended) A material for forming copper undercoat films comprising a compound represented by the general formula:

$$(R_1R_2)P-(R)n-Si(X_1X_2X_3)$$

wherein at least one of X<sub>1</sub>, X<sub>2</sub> and X<sub>3</sub> is selected from a group comprising halogens, alkoxide groups, amino groups and isocyanate groups, R<sub>1</sub> and R<sub>2</sub> are alkyl groups with carbon numbers of 1-21, R has a carbon number of 1-50, and denotes a chain-form organic group formed from alkyl groups, aromatic rings or alkyl groups containing aromatic rings, and n is an integer from 1 to 6, wherein the material prevents copper diffusion.

- 3. (Currently Amended) The material for forming copper undercoat films according to claim 1, wherein characterized by the bonding of (R<sub>1</sub>R<sub>2</sub>)P-(R)n-Si groups are bonded to a substrate via Si-O bonding, by a solvent and by the compound represented by the general formula.
- 4. (Currently Amended) The material for forming copper undercoat films according to claim 1, characterized in that the compound represented by the general formula is selected from the group consisting of: 1-dimethylphosphino-2-triethoxysilylethane, 1-diethylphosphino-2-

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triethoxysilylethane, 1-diphenylphosphino-2-triethoxysilylethane, 1-dimethylphosphino-2-

trimethoxysilylethane, 1-diethylphosphino-2trimethoxysilylethane, 1-diphenylphosphino-2-

trimethoxysilylethane, 1-dimethylphosphino-3triethoxysilylpropane, 1-diethylphosphino-3-

triethoxysilylpropane, 1-diphenylphosphino-3-triethoxysilylpropane, 1-diphenylphosphino-2-

trichlorosilylethane, 1-diphenylphosphino-2trisdimethylaminosilylethane, 1-diphenylphosphino-

2-triisocyanatosilylethane and 1-diphenylphosphino-4-triethoxysilylethylbenzene.

5. (Currently Amended) A method The material-for forming copper undercoat films

comprising according to claim 1, contacting characterized in that the material for forming copper

undercoat films of claim 1 is brought-into contact with a substrate surface, thus forming a copper

undercoat film.

6. (Currently Amended) The methodmaterial for forming copper undercoat films according

to claim 5, wherein the undercoat film is produced by the bonding of  $(R_1R_2)P$ - $(R)_n$ -Si groups to

the substrate via Si-O bonding, and wherein the reaction between  $-Si(X_1X_2X_3)$  groups and -OH

groups at the substrate surface occurs in liquid phase.

7. (Currently Amended) The method<del>material</del> for forming copper undercoat films according

to claim 5, wherein the undercoat film is produced by the bonding of  $(R_1R_2)P-(R)_n$ -Si groups to

the substrate via Si- O bonding, and wherein the reaction between-Si  $(X_1X_2X_3)$  groups and -OH

groups at the substrate surface occurs in gas phase.

8. (Currently Amended) The <u>method</u> for forming copper undercoat films according

to claim 5, wherein the undercoat film is produced by the bonding of  $(R_1R_2)$ - $(R)_n$ -Si groups to

the substrate via Si-O bonding, and wherein the reaction between  $-Si(X_1X_2X_3)$  groups and -OH

groups at the substrate surface occurs in a supercritical liquid.

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9. (Currently Amended) The <u>method</u>material for forming copper undercoat films according to claim 5, characterized in that the reaction between -Si(X<sub>1</sub>X<sub>2</sub>X<sub>3</sub>) groups and -OH groups at the substrate surface is carried out under the condition of room temperature to 450 °C.

- 10. (Currently Amended) The material for forming copper undercoat films according to claim 2, wherein characterized by the bonding of (R<sub>1</sub>R<sub>2</sub>)P-(R)n-Si groups are bonded to a substrate via Si-O bonding, by a solvent and by the compound represented by the general formula.
- 11. (Currently Amended) The material for forming copper undercoat films according to claim 2, characterized in that the compound represented by the general formula is selected from the group consisting of: 1-dimethylphosphino-2-triethoxysilylethane, 1-diethylphosphino-2-triethoxysilylethane, 1-diethylphosphino-2-triethoxysilylethane, 1-dimethylphosphino-2-trimethoxysilylethane, 1-diethylphosphino-2-trimethoxysilylethane, 1-diethylphosphino-3-triethoxysilylpropane, 1-diethylphosphino-3-triethoxysilylpropane, 1-diphenylphosphino-2-trichlorosilylethane, 1-diphenylphosphino-2-trichlorosilylethane, 1-diphenylphosphino-2-triisdimethylaminosilylethane, 1-diphenylphosphino-2-triisocyanatosilylethane and 1-diphenylphosphino-4-triethoxysilylethylbenzene.
- 12. (Currently Amended) A method The material for forming copper undercoat films comprising according to claim 2, contacting characterized in that the material for forming copper undercoat films of claim 2 is brought into contact with a substrate surface, thus forming a copper undercoat film.
- 13. (Currently Amended) The <u>method</u> for forming copper undercoat films according to claim 12, wherein the undercoat film is produced by the bonding of  $(R_1R_2)P$ - $(R)_n$ -Si groups to

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the substrate via Si-O bonding, and wherein the reaction between -Si( $X_1X_2X_3$ ) groups and -OH

groups at the substrate surface occurs in liquid phase.

14. (Currently Amended) The methodmaterial for forming copper undercoat films according

to claim 12, wherein the undercoat film is produced by the bonding of  $(R_1R_2)P-(R)_n$ -Si groups to

the substrate via Si-0 bonding, and wherein the reaction between-Si (X<sub>1</sub>X<sub>2</sub>X<sub>3</sub>) groups and -OH

groups at the substrate surface occurs in gas phase.

15. (Currently Amended) The methodmaterial for forming copper undercoat films according

to claim 12, wherein the undercoat film is produced by the bonding of  $(R_1R_2)$ - $(R)_n$ -Si groups to

the substrate via Si-O bonding, and wherein the reaction between  $-Si(X_1X_2X_3)$  groups and -OH

groups at the substrate surface occurs in a supercritical liquid.

16. (Currently Amended) The methodmaterial for forming copper undercoat films according

to claim 12, characterized in that the reaction between  $-Si(X_1X_2X_3)$  groups and -OH groups at the

substrate surface is carried out under the condition of room temperature to 450 °C.